

Attorney Docket No. M1211/20002

IN THE CLAIMS:

Please cancel claims 1-14 without prejudice or disclaimer.

Please add claims 15-36 as follow:

(1) -- ~~15~~. A transmitter comprising:

a quadrature modulator for quadrature modulating an in-phase component and a quadrature-phase component of a complex input signal;

a power amplifier connected downstream of the quadrature modulator;

a quadrature demodulator for quadrature demodulating the output signal of the power amplifier into a feedback in-phase component and a feedback quadrature-phase component;

a first differential amplifier connected upstream of the quadrature modulator, said first differential amplifier having a first input to which the in-phase component of the input signal is applied and a second input to which the feedback in-phase component is applied; and

a second differential amplifier connected upstream of the quadrature modulator, said second differential amplifier having a first input of the second differential amplifier to which the quadrature-phase component of the input signal is applied and a second input of the second differential amplifier to which the feedback quadrature-phase component is applied,

Attorney Docket No. M1211/20002

wherein an output of the first differential amplifier is directly connectable to the second input of the first differential amplifier via a first direct DC signal path, bypassing the quadrature modulator, the power amplifier and the quadrature demodulator, when switching from a transmission mode into a transmission-interrupt mode, and wherein an output of the second differential amplifier is directly connectable to the second input of the second differential amplifier via a second direct DC signal path, bypassing the quadrature modulator, the power amplifier and the quadrature demodulator, when switching from the transmission mode into the transmission-interrupt mode.

(2) 16. The transmitter as claimed in claim 1, wherein each direct DC signal path has a respective first controllable switch.

(3) 17. The transmitter as claimed in claim 16, further comprising a second controllable switch adapted to interrupt the feedback in-phase component and the feedback quadrature-phase component of the output signal.

(4) 18. The transmitter as claimed in claim 17, wherein the second controllable switch is disposed at an input of the quadrature demodulator and deactivates the input of the quadrature demodulator via a defined input resistance in response to a signal interruption.

(5) 19. The transmitter as claimed in claim 18, wherein a DC offset of the in-phase component of the quadrature demodulator can be compensated by a first compensating voltage and a DC offset of the

quadrature-phase component of the quadrature demodulator can be compensated by a second compensating voltage.

(6) 20. The transmitter as claimed in claim 19, wherein a third differential amplifier is connected upstream of the first differential amplifier, the first compensating voltage being connected to the third differential amplifier, and a fourth differential amplifier is connected upstream of the second differential amplifier, the second compensating voltage being connected to the fourth differential amplifier. (5)

(9) 21. The transmitter as claimed in claim 19, wherein a DC offset of the in-phase component of the quadrature modulator can be compensated by way of a third compensating voltage and a DC offset of the quadrature-phase component of the quadrature modulator can be compensated by way of a fourth compensating voltage. (5)

(7) 22. The transmitter as claimed in claim 20, wherein a DC offset of the in-phase component of the quadrature modulator can be compensated by way of a third compensating voltage and a DC offset of the quadrature-phase component of the quadrature modulator can be compensated by way of a fourth compensating voltage. (6)

(10) 23. The transmitter as claimed in claim 21, wherein a fifth differential amplifier is connected downstream of the first differential amplifier, the fifth differential being connected to the third compensating voltage, and a sixth differential amplifier is connected downstream of the second differential amplifier, the sixth differential amplifier being connected to the fourth compensating voltage. (9)

⑧ 24. The transmitter as claimed in claim 22, wherein a fifth differential amplifier is connected downstream of the first differential amplifier, the fifth differential being connected to the third compensating voltage, and a sixth differential amplifier is connected downstream of the second differential amplifier, the sixth differential amplifier being connected to the fourth compensating voltage.

⑪ 25. A method for switching the transmitter of claim 15 from a transmission mode into a transmission-interrupt mode, said method comprising:

providing the transmitter of claim 15;  
activating the first direct DC signal path between the output of the first differential amplifier and the second input of the first differential amplifier;

activating the second direct DC signal path between the output of the second differential amplifier and the second input of the second differential amplifier; and

opening a high-frequency signal path running from the outputs of the first and second differential amplifiers via the quadrature modulator, the power amplifier and the quadrature demodulator to the second inputs of the first and second differential amplifiers,

wherein the activating steps precede the opening step.

⑫ 26. The method as claimed in claim 25, wherein the high-frequency signal path is opened upstream of the input of the quadrature demodulator, and the method further comprises:

deactivating a voltage supply for the power amplifier; and

closing the input of the quadrature demodulator with a defined input resistance.

(17) 27. The method as claimed in claim 25, wherein prior to activating the first and second direct DC signal paths and prior to opening the high-frequency signal path, the quadrature modulator is compensated so that the output voltages of the first and second differential amplifiers are minimized.

(18) 28. The method as claimed in claim 26, wherein prior to activating the first and second direct DC signal paths and prior to opening the high-frequency signal path, the quadrature modulator is compensated so that the output voltages of the first and second differential amplifiers are minimized.

(20) 29. The method as claimed in claim 25, wherein after activating the first and second DC signal paths and after opening the high-frequency signal path, the quadrature demodulator is compensated so that the output voltages of the first and second differential amplifiers are minimized.

(15) 30. The method as claimed in claim 26, wherein after activating the first and second DC signal paths and after opening the high-frequency signal path, the quadrature demodulator is compensated so that the output voltages of the first and second differential amplifiers are minimized.

(18) 31. The method as claimed in claim 27, wherein after activating the first and second DC signal paths and after opening the high-frequency signal path, the quadrature demodulator is compensated so

that the output voltages of the first and second differential amplifiers are minimized.

(14) 32. The method as claimed in claim 28, wherein after activating the first and second DC signal paths and after opening the high-frequency signal path, the quadrature demodulator is compensated so that the output voltages of the first and second differential amplifiers are minimized.

(22) 33. The method as claimed in claim 25, wherein before activating the first and second direct DC signal paths and before opening the high-frequency signal path, the quadrature demodulator is compensated so that the output power of the power amplifier is minimized when the input signal of the transmitter is interrupted.

(16) 34. The method as claimed in claim 26, wherein before activating the first and second direct DC signal paths and before opening the high-frequency signal path, the quadrature demodulator is compensated so that the output power of the power amplifier is minimized when the input signal of the transmitter is interrupted.

(19) 35. The method as claimed in claim 27, wherein before activating the first and second direct DC signal paths and before opening the high-frequency signal path, the quadrature demodulator is compensated so that the output power of the power amplifier is minimized when the input signal of the transmitter is interrupted.

(21) 36. The method as claimed in claim 29, wherein before activating the first and second direct DC signal paths and before opening the high-frequency signal path, the quadrature demodulator is

compensated so that the output power of the power amplifier is minimized when the input signal of the transmitter is interrupted. --

IN THE ABSTRACT:

Please append the attached Abstract to the application as page 24.